# CLAIMS

What is claimed is

1. A method of forming an electrical interconnection between a first electrical device and a second electrical device comprising the steps of:

providing contacts in an uncompressed state;

deforming the contacts to a compressed state;

positioning the contacts in a device adapted to hold the contacts between the first and second electrical devices; and

activating the contacts to substantially expand the contacts to the uncompressed state, wherein each contact expands to substantially its uncompressed state for establishing the electrical interconnection between the first and second electrical devices.

2. A method in accordance with Claim 1 wherein the device for positioning the contacts comprises a land grid array.

3. A method in accordance with Claim 1 wherein each contact is composed of a shape memory material.

4. A method in accordance with Claim 3 further including the shape memory material being superelastic material.

5. A method in accordance with Claim 3 wherein the shape memory material is a nickel titanium alloy.

6. A method of forming an electrical interconnection between a first electrical device and a second electrical device comprising the steps of:

providing contacts in an uncompressed state and composed of a shape memory material;

positioning the contacts in a device adapted to hold the contacts between the first and second electrical devices; and

positioning the device with the contacts therein for establishing electrical interconnection between the first electrical device and the second electrical device.

7. A method in accordance with Claim 6 wherein the device for positioning the contacts comprises a land grid array.

8. A method in accordance with Claim 7 further including a step of providing the contact being made of a shape memory material having superelastic properties.

9. A method in accordance with Claim 6 wherein in the shape memory material is a nickel titanium alloy.

10. A method of forming an electrical connection between a first electrical device and a second electrical device comprising the steps of:

providing contacts composed of a shape memory material;

providing contacts assembled in a compressed state in a device for positioning the contacts;

positioning the device for positioning with the contacts in the compressed state between the first and second electrical devices; and

activating the contacts to a substantially uncompressed state to make the electrical connection between the first and second electrical devices;

wherein the contacts are adapted to accommodate a variation in a gap width between the first and second electrical devices

11. A method in accordance with Claim 10 wherein the contacts are assembled into an interposer.

12. A method in accordance with Claim 11 wherein the interposer comprises a land grid array.

13. A method in accordance with Claim 10 wherein the shape memory material is a nickel titanium alloy.

14. A contact for establishing an electrical connection between a first electronic device and a second electronic device, the contact comprising:

a flexible conductive body formed in a first position and adapted to be set into a second position and activated into a third position in order to accommodate a variable gap between the first electronic device and the second electronic device for establishing the electrical connection.

15. A contact in accordance with Claim 14 wherein the contact may be in compressed state, a second position, and upon heat activation of a shape memory material, the contact translates to a third position, being the uncompressed state.

16. A contact in accordance with Claim 14 for use in an interposer wherein the shape memory material is a nickel titanium alloy.

17. A contact in accordance with Claim 14 wherein the shape memory material has a martinsitic transition temperature in the range between -20 to 100 degrees C.

18. A contact in accordance with Claim 14 further comprising the shape memory material being superelastic.

19. A contact in accordance with Claim 14 wherein the electrical contact is selected from the contacts having a shape of an E, a C, a Random coil spring, and a helical spring.